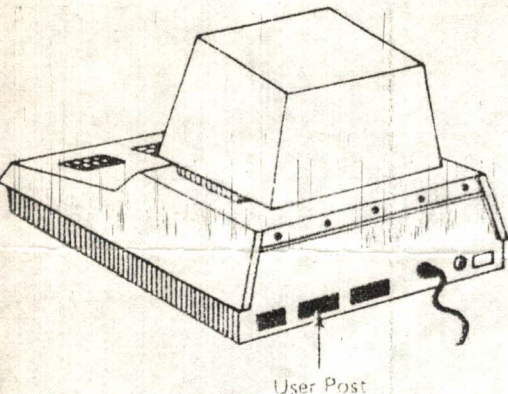


Adding Sound to Your PET

by Dave Moyssiadis



With a little hardware and a little software you can add sound to your PET and add a new dimension to such things as games. (Space Invaders is even more exciting with sound.) If you are not handy with a soldering iron you can get an edgecard connector from your dealer and hook the User Port up to your stereo system.

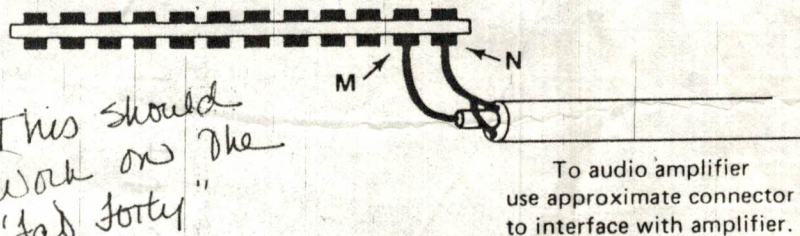
For the brave souls who do not cringe at the sight of a screwdriver, you will need a soldering iron, solder, and edge card connector available from your dealer and a suitable length of coaxial cable (the same stuff your stereo system is hooked up with) and the appropriate connector to input to the audio amplifier of any stereo system. Now take a look at the back of your PET and note the three edge connectors at the rear. (Fig. 1) The one on the left is the cassette interface. The one in the MIDDLE is the one we are interested in — not the one on the right which is the same size. There are a total of 24 connections on this edge, 12 on top and 12 on the bottom. On the bottom side there are pins 'M' and 'N'. (You may want to look at your manual under PET COMMUNICATES WITH THE OUTSIDE WORLD.) This will give you detailed diagrams of these connectors.

The "M" and "N" pins are the two on the lower right side as you look at the rear of the PET right side up. "N" is the ground or shield side, and "M" is the signal connection or center conductor. Solder the edge card connector in this manner (Fig. 2) and be very careful about your work. You are fooling around with the 6522 chip which is the most expensive one on the mother board — and you can burn it up very easily. Before you plug anything in check your solder connections and cable to make sure there are no shorts either directly between pins M and N or in the patch cord you have just made. Then you can make your connections and start up the PET and your amplifier.

After you key it in and run it, press "S" to stop the noise. What you should hear is a siren type sound. Next, change lines 30 and 60 to read POKE 59455, 151 and run the program. Again press the "S" key to stop.

This is what is happening: POKE 59467, 16 turns on the sound, 59464 changes the pitch of the sound and 59466 changes the quality or timbre of the sound. Legal values are from 0 to 255 as with any POKE command. Experiment with different POKE values, to get different sounds. Note that POKE 59464, 1 is a high pitched sound and POKE 59464, 255 is low. Also

Rear view of
Edge Card Connector



Now comes the software part. Key in the following program:

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10 POKE59467,16
20 POKE59466,15
30 FOR X=1TO255
40 POKE59464,X
50 NEXT
60 FOR X=255 TO 1 STEP-1
70 POKE59464,X
80 NEXT
90 GETA$
100 IFA$<>"S"GOTO30
110 POKE59464,0
120 POKE59466,0
130 POKE59467,0
140 END

```

POKE 59466, 1 is a sharp sound and POKE 59466, 255 is dull. One note of caution: You MUST turn off the sound completely by setting all three pokes to 0 before you can use the cassette LOAD or SAVE. Even if you do not hear sound you must still POKE everything off. Otherwise you will not be able to SAVE a program or to LOAD a program.